

TEACHING AND LEARNING ETHICS

Helping medical students to find their moral compasses: ethics teaching for second and third year undergraduates

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The paper describes a two week course that has been offered as a special study module to intermediate level (second and third year) undergraduate medical students at Dundee University Medical School for the past five years. The course requires students to research the various aspects of ethical dilemmas that they have identified themselves, and to “teach” these issues to their colleagues in a short PowerPoint presentation as well as to prepare an extended 3000 word essay discussion. The course specifically asks students not to disclose their own ethical positions, as these are probably still in formation and the objective is to promote critical thinking capacity in ethical and moral issues as a prelude to the development of practical skills in dealing with clinical problems. The course is easy to resource for the school and has received universally high evaluations from the students since its inception.

pressure to act unethically and/or witnessed a clinical teacher acting unethically.

Nearly a decade ago Feudtner, Christakis, and Christakis⁸ reported self perceived “ethical erosion” among a third of the third and fourth year medical students enrolled at six Pennsylvania medical schools in 1992–93 who responded to an anonymous postal survey. They concluded: “To prevent ethical erosion, ethics education during the clinical years should be refocused upon the clinical dilemmas that students confront as clinical clerks, and attempt to provide timely and practical guidance. Teachers should strive to promote discussions about real occurrences directly involving students.” (p 678) (see also Perkins, Geppert, and Hazuda⁹).

There is a consensus that students need to develop and use “moral compasses”¹⁰ to cope with real ethical and moral dilemmas that they face from their earliest training. And there is agreement that the students themselves can usefully generate the issues to be explored from their own growing exposure and experience.^{11–14} As students progress, and become clinically experienced, the use of case based scenarios that they can analyse from a combination of their evolving knowledge of principles and philosophies together with their own experience is recommended.^{15 16}

BACKGROUND

Our interest has been in developing a special study module to introduce neophytes to the principles and practice of medical ethics as they move into their substantive clinical experiences—to help them develop their moral compasses. The core curriculum in ethics and law in all phases of our three phase undergraduate course is delivered as an integral part of the systems teaching which is required by the General Medical Council (GMC). The core components address the topics shown in box 1.

One of the present authors (Preece) served as coordinator of the Ethics and Law Theme in the GMC recommended undergraduate curriculum for the first seven years from its inception, and found that systems centred delivery greatly enhanced the students’ appreciation that ethics are all pervasive in the practice of medicine.

COURSE DESCRIPTION

We took the opportunity provided by the introduction of special study modules into the undergraduate curriculum (a recommendation of the UK GMC in *Tomorrow’s Doctors* published in

Ethical dilemmas arise very early in the medical student’s course and are not restricted to clinical issues. Several studies have reported the willingness of medical students to plagiarise and to cheat in examinations.^{1–3} Some observers have suggested that poor ethical behaviours can come to constitute a “hidden curriculum” in medical schools,^{4–6} and can translate into poor ethical attitudes in the clinical years. For instance Rennie and Crosby¹ found that about a quarter of the students they studied in a Scottish medical school had written or would consider writing “nervous system examination normal” in a patient’s notes even when the examination had not been performed, although far fewer would be prepared to forge a doctor’s signature on a piece of work. Another study of 386 second, third, and fourth year students at an English medical school found that in a third of vaginal or rectal examinations undertaken by second year students and a half of those undertaken by third year students, the student did not know if consent had been obtained—although this reduced to 5% for the fourth year students.³ It was estimated that a quarter of intimate examinations on sedated or anaesthetised patients had been carried out without written or oral consent by the second and third year students. Hicks *et al*³ reported that half of 108 clinical students a year from the end of their training at the medical school of the University of Toronto felt they had been under

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Abbreviations: GMC, General Medical Council.

Box 1 Core components of Dundee ethics curriculum

- Confidentiality
- Consent
- Truth telling
- Ends of life issues
- Allocation of resources
- Research ethics

1993¹⁷). For the past five years we have offered a special study module in Medical Ethics and Law for second and third year undergraduates in our Scottish medical school. The topics covered in this are listed in box 2, which shows that the module sets out to provide a deeper and expanded coverage of items in the core ethics curriculum.

These topics use an eclectic range of ethical approaches which includes the teaching of classical ethical principles and theories, as well as clarification of values and strategies for analysing options to facilitate decision making.

We can only accept 20 enrolments each year out of 320 potential participants, in order to facilitate learning in seminars and small groups. In these groups the numbers of participants ranges from two to five. The course has regularly been oversubscribed. Our learning objectives are primarily to help the students develop critical thinking skills for the analysis of ethical and medico-legal issues. We believe that they are in the process of forming their own ethical and moral values as they progress through their undergraduate learning and we do not ask them to make these explicit at this stage. We require them to identify an issue and examine it as an ethical dilemma, presenting all sides of the arguments involved. This is presented as a short (10 minutes) PowerPoint (Microsoft) presentation to the rest of the group at the end of the two week session, and as a 3000 word essay on the issue of their choice. This, together with the electronic database literature search they undertake to develop their analysis, promotes the development of generic presentation skills, as does the requirement that they reference their reports in a standard (Vancouver) citation mode.

For the first four days of the 10 day teaching cycle, we present a panel of multidisciplinary speakers who have a specialist competence in various topics. Our former director of drug development speaks on the ethics of clinical trials. A specialist in palliative care from our regional hospice talks about end of life issues. A clinical oncologist considers issues of truth telling and confidentiality. Our chaplain addresses issues of allocation of resources in personal time management as well as in our government funded health system. A medical adviser to a medical defence organisation and a surgeon examine the issues of consent and accountability. A

Box 2 Topics presented in ethics special study modules

- Historical examples of bad medicine
- Research ethics (Nuremberg to Helsinki)
- Allocation of resources
- Truth telling
- Abortion
- Consent and professional accountability
- Euthanasia

practising gynaecologist reviews her practice in relation to abortion. There is an historical review of "bad medicine" from Tuskegee through Nuremberg to the evolving protocols of the post war period. These are all interactive seminars lasting one to two hours, and the students participate readily. While each of the expert panel presenting runs his or her own seminar, the clinical convenor of the course (Preece) is present throughout to facilitate integration and synthesis of the material.

The students choose to sit in a circle and comment on how this promotes discussion. We strive for a non-threatening educational environment, reminding students that they are not required to "expose" their personal positions, but to show the capacity to "think ethically" within the medico-legal framework that they are likely to work in within the UK.

After the initial few days of "information gathering" the students identify the issues they wish to research for themselves. This might be something directly addressed by the panel or an area that was raised but not explored in depth by the "experts". One example was the issues raised by the views of patients who are Jehovah's Witnesses in relation to blood transfusion. Another has been a review of different religions' values about death and dying and the disposal of the deceased. The ethics of animal experimentation came up one year. Genome related and genetic technology issues are increasingly addressed. The students have five working days plus the weekend to prepare their 3000 word essays and their presentations for the plenary meetings on the last two days of the course. The course convenors are easily accessible during this period to provide guidance, and the presenters are available by email and telephone if students want to explore their topic more fully. All our students have internet access as well as the use of a reasonable medical library. We also remind them that when they present their own analyses at the end of the two weeks, they are teaching their colleagues, which requires them to organise their material in a way that will promote learning.

STUDENT PERCEPTIONS OF THE COURSE

In their course evaluations, the students respond very positively. They enjoy the opportunity to discuss the issues with practising experts: "The opportunities to discuss philosophical aspects of medicine were extremely enjoyable and gave us the chance to use thinking and material which we would not normally have the opportunity to use during our medical course!" They appreciated the non-threatening environment: "I enjoyed the opportunity that we were allowed to discuss any issue that we wished to. It was so good that we were shown such freedom to discuss any issue that we were particularly interested in." They appreciated the time for research and the diversity of topics, although some would have liked longer to work on these. They realised that they were developing generic presentation and teaching skills. Many students suggested that this was a way of thinking that was different from the approach normally required to succeed in medical school: "It gave you a chance

Box 3 Typical presentation topics

- Allocation of resources: organ transplantation
- The ethics of abortion
- The ethics of eugenics and genetic selection
- Doctors and the death penalty
- Euthanasia: a growing moral problem
- Maternal-foetal conflict

Box 4 Criteria provided to rate student performance

- Attainment of course objectives in course work
- Interest
- Motivation
- Reliability
- Attendance

to 'think', something that you forget to do in medicine." Many thought the course should be mandatory rather than optional for those few able to be enrolled: "It should be made a significant part of the core curriculum! Fantastic!" Perhaps the biggest vote of confidence was the virtually complete attendance at all sessions over the years the course has been running, even though it starts at 9.30am and is a fair walk for many students from their accommodation. They appreciated the relatively tight timetable of the course, with the presentations clearly listed and always beginning punctually. They enjoyed the role of the clinical convenor and his accessibility over coffee and lunch throughout the two weeks. Several students have opted to undertake related Electives Projects in their fourth year studies.

ASSESSMENT

In the assessment, the criteria for the presentations revolved around the generic skills of presenting and teaching as much as the content and critical thinking skills evidenced by the presentation. Box 4 lists the criteria from the school for this.

The 3000 word assignments were usually of a high standard for students of their level and the assessment criteria focussed on demonstration of critical thinking and analytical skills, as well as presentation skills with particular reference to footnoting the evidence base for their analysis. It has been interesting to note that participants have never expressed their personal position throughout the five years of the course; they appreciate and comply with the requirement to analyse ethical dilemmas "in the round" without indicating their own position—tentative or otherwise.

CONCLUSIONS

Our panel of presenters have been loyal to the course throughout its five years. They often comment on the quality of the discussion and the pleasure they get in working through the issues with the students. Coming as they do from widely differing specialties, which require very different approaches and personalities, these individuals give the students unique stimuli. This is analogous to the experience reported by Munn *et al*¹⁸ where actual practitioners in a range of specialties concerned with the Genome Project brought unique educational merit to teaching neophytes.

The case for effective ethical education of medical students is reinforced in the report by Demmer *et al*¹⁹ of "a disturbing lack of familiarity with the ethical principles of genetic testing" (p 2596) among a group of Canadian physicians compared with medical students. We have not undertaken any formal testing of the educational effectiveness of the course, nor of its actual impact on the development of the students' ethical thinking, much less practice. In the British system junior doctors do not begin to choose specialties until two or three years after graduation, and so it is too early to know if the course has influenced these choices. However,

after each of the courses, the participating students have completed an evaluation questionnaire. They have also been invited to provide feedback as free text. The delivery of the course has regularly been modified to respond to the students' suggestions, as well as to those of the contributors. Overall rating of the course has been consistently high.

As course convenors, one of whom (Preece) has 40 years of clinical experience and one of whom (Roff) is a lay member of the GMC's Fitness to Practice Committee and Unrelated Live Transplant Regulatory Authority, we offer this description as being of a course that is easily replicable in many other schools where panellists can be identified from the clinical and teaching staff, and from related professions such as the hospital chaplaincy. In it, we have found more profit at this stage in the students' development, to elicit their values about "real occurrences" rather than more theoretical analyses comparing competing ethical theories. The inter-linking of case based scenarios (usually real) with ethical theory, is a powerful learning tool in these modules, as recommended by Macrina²⁰ and Schwartz, Preece, and Hendry.²¹ It offers neophytes to medicine the chance to develop and use their "moral compasses" in the recognition of ethical issues and their resolution in practice.

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